CHEMICAL SENSES

This area can be operationally defined as "the development of a fundamental understanding of those physical/chemical and biological system interactions that result in subjective response to a product." The senses of primary interest include taste, odor, feel (e.g. trigeminal), vision and the role of cognitive factors (e.g. consumer expectancy). The levels of interest encompass single compounds, mixtures, receptors, biochemistry, physiology, cognition evaluation, study designs, testing and hypothesis evaluations.

Status:

Technological and marketing factors have prompted increased activity in the chemical senses areas by consumer goods manufacturers. Activities noted in the literature range from fundamental mechanism and physiology studies through the development of new consumer testing tools.

Likely Scenario:

We believe that fundamental understanding in this area will increase rapidly during the plan period, augmented by the increasing power of computers to identify chemical configurations and model complex systems. Consumer applications will follow quickly. Philip Morris' competitors are known to be active in this area.

Alternate Scenarios:

A breakthrough in fundamental understanding could lead quickly to the development of unique new products - perhaps by our competitors.

The identification of specific chemical species which are critical to subjective response could result in selective filters for those species.

R&D Response:

Proposed responses are discussed elsewhere in this plan (sec. ???.) Briefly, our initial response must be to clearly define our objectives in this area in order to design studies or acquire tools which will lead to the timely development of product improvements.

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Source: https://www.industrydocuments.ucsf.edu/docs/nqkl0000

* Emerging Technologies - A Survey of Technical and Economic Opportunities, Technology Administration, U.S. Department of Commerce, Spring 1990.

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